

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A computer implemented method of evaluating a plurality of customer records stored in a computer database to identify high value customers to be targeted by a customer retention or reward program, each customer record having at least a first attribute and a second attribute, each of the first attribute and the second attribute having an associated attribute value, the method comprising:
 - a) first sorting the plurality of customer records based on the first attribute and assigning a first discretized attribute to each customer record where the first discretized attribute is based on the sorted rank of the customer record;
 - b) second sorting the plurality of customer records based on the second attribute and assigning a second discretized attribute to each customer record where the second discretized attribute is based on the sorted rank of the customer record;
 - c) third sorting the plurality of customer records in to an order based on the assigned first discretized attribute scores associated with the first attribute;
 - d) fourth sorting the ordered plurality of customer records resulting from the third sorting in to an order where the customer records having the same first discretized attribute scores are further sorted based on the assigned second discretized attribute scores associated with the second attribute;
 - e) fifth sorting the ordered plurality of customer records resulting from the fourth sorting in to an order based on the attribute values associated with at least the first attribute and the second attribute, until customer records, which have different attribute values associated with at least

the first attribute or the second attribute, have been sorted to different ranks;

- f) assigning an evaluation score to each customer record based on the rank of each customer record after the fifth sorting and independent of the discretized attribute scores; and
 - g) identifying the high value customers by selecting the customer records that have the highest assigned evaluation scores.
2. (Previously Presented) The method of claim 1, wherein step (a) includes the steps of:
- (i) breaking the sorted plurality of customer records into a number of groups based on the rank of each customer record and its first attribute values; and
 - (ii) for each customer record in a group, assigning the same first discretized attribute score.
3. (Previously Presented) The method of claim 1, wherein step (b) includes the steps of:
- (i) breaking the sorted plurality of customer records into a number of groups based on the rank of each customer record and its second attribute value; and
 - (ii) for each customer record in a group, assigning the same second discretized attribute score.

4. (Previously Presented) The method of claim 1, wherein step (a) includes the steps of:
 - (i) breaking the sorted plurality of customer records into quartiles; and
 - (ii) for customer records of the same quartile, assigning one of the scores of 1, 2, 3, and 4 as the first discretized attribute.
5. (Previously Presented) The method of claim 1, wherein step (f) includes the steps of:
 - (iii) splitting the customer records, which have been sorted, into a number of groups based on their current ranking; and
 - (iv) assigning an evaluation score for the customer records of each group.
6. (Previously Presented) The method of claim 1, wherein step (f) includes the steps of:
 - (v) splitting the customer records, which have been sorted, into 100 groups based on the current ranking of the customer records; and
 - (vi) assigning an evaluation score of between 1 and 100 for customer records of each group.
7. (Previously Presented) The method of claim 1, wherein step (e) is performed until customer records, which have same assigned first and second discretized attribute scores but different attribute values associated with at least the first attribute or the second attribute, have been sorted to different ranks.

8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Previously Presented) A computer architecture for evaluating a plurality of customer records stored in a computer database to identify high value customers to be targeted by a customer retention or reward program, each customer record having at least a first attribute and a second attribute, each of the first attribute and the second attribute having an associated attribute value, the computer architecture comprising:
 - a) means for first sorting the plurality of customer records based on the first attribute and assigning a first discretized attribute to each customer record where the first discretized attribute is based on the sorted rank of the customer record;
 - b) means for second sorting the plurality of customer records based on the second attribute and assigning a second discretized attribute to each customer record where the second discretized attribute is based on the sorted rank of the customer record;
 - c) means for third sorting the plurality of customer records in order based on the assigned first discretized attribute scores associated with the first attribute;
 - d) means for fourth sorting the ordered plurality of customer records resulting from the third sorting in to an order where the customer records having the same first discretized attribute scores are further

sorted based on the assigned second discretized attribute scores associated with the second attribute;

- e) means for fifth sorting the ordered plurality of customer records resulting from the fourth sorting in to an order based on the attribute values associated with at least the first attribute and the second attribute, until customer records, which have different attribute values associated with at least the first attribute or the second attribute, have been sorted to different ranks;
- f) means for assigning an evaluation score to each customer record based on the rank of each customer record after the fifth sorting and independent of the discretized attribute scores; and
- g) means for identifying the high value customers by selecting the customer records that having the highest assigned evaluation scores.

12. (Previously Presented) A computer system for evaluating a plurality of customer records stored in a computer database to identify high value customers to be targeted by a customer retention or reward program, each customer record having at least a first attribute and a second attribute, each of the first attribute and the second attribute having an associated attribute value, the computer system comprising:

a processor; and

a memory coupled to the processor, the memory having stored therein sequences of instructions, which, when executed by the processor, cause the processor to perform the steps of:

first sorting the plurality of customer records based on the first attribute and assigning a first discretized attribute to each customer record

where the first discretized attribute is based on the sorted rank of the customer record;

second sorting the plurality of customer records based on the second attribute and assigning a second discretized attribute to each customer record where the second discretized attribute is based on the sorted rank of the customer record;

third sorting the plurality of customer records in to an order based on the assigned first discretized attribute scores associated with the first attribute;

fourth sorting the ordered plurality of customer records resulting from the third sorting in to an order where the customer records having the same first discretized attribute scores are further sorted based on the assigned second discretized attribute scores associated with the second attribute;

fifth sorting the ordered plurality of customer records resulting from the fourth sorting in to an order based on the attribute values associated with at least the first attribute and the second attribute, until customer records, which have different attribute values associated with at least the first attribute or the second attribute, have been sorted to different ranks;

assigning an evaluation score to each customer record based on the rank of each customer record after the fifth sorting and independent of the discretized attribute scores; and

identifying the high value customers by selecting the customer records that having the highest assigned evaluation scores.

13. (Previously Presented) An article, for use in evaluating a plurality of customer records stored in a computer database to identify high value customers to be targeted by a customer retention or reward program, each customer record having at least a first attribute and a second attribute, each of the first attribute and the second attribute having an associated attribute value, the article comprising:

at least one sequence of machine readable instructions in machine readable form,

wherein execution of the instructions by one or more processors causes the one or more processors to perform the steps of:

first sorting the plurality of customer records based on the first attribute and assigning a first discretized attribute to each customer record where the first discretized attribute is based on the sorted rank of the customer record;

second sorting the plurality of customer records based on the second attribute and assigning a second discretized attribute to each customer record where the second discretized attribute is based on the sorted rank of the customer record;

third sorting the plurality of customer records in to an order based on the assigned first discretized attribute scores associated with the first attribute;

fourth sorting the ordered plurality of customer records resulting from the third sorting in to an order where the customer records having the same first discretized attribute scores are further sorted based on the assigned second discretized attribute scores associated with the second attribute;

fifth sorting the ordered plurality of customer records resulting from the fourth sorting in to an order based on the attribute values associated with at least the first attribute and the second attribute, until customer records, which

have different attribute values associated with at least the first attribute or the second attribute, have been sorted to different ranks;

assigning an evaluation score to each customer record based on the rank of each customer record after the fifth sorting and independent of the discretized attribute scores; and

identifying the high value customers by selecting the customer records that having the highest assigned evaluation scores.

14. (Previously Presented) The method of claim 1, wherein step (b) includes the steps of:

(i) breaking the sorted plurality of customer records into quartiles; and

(ii) for customer records of the same quartile, assigning one of the scores of 1, 2, 3, and 4 as the second discretized attribute.

15. (Previously Presented) The method of claim 1, where the first attribute includes the revenue generated by the customer.

16. (Previously Presented) The method of claim 1, where the second attribute includes the number of purchases made by the customer.